

REMARKS

Applicant thanks the Examiner for the allowance of claims 1-38, 44-59, and 65-79.

The Examiner has rejected claims 60-64 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant has amended claims 60-64 to overcome the rejection.

The Examiner has rejected claims 60-64 under 35 U.S.C. §103(a) as being unpatentable over Lawrence (US 3,437,380 in view of Konig, et al. (US 4,441,616). Konig, et al., teaches a process for sorting coarse to fine materials according to chemical composition and in which the transporting and further processing of the materials is controlled according to the results of the analysis. Konig, et al., say nothing about an optimization module to change cutter head operation *during excavation* when the monitored selected excavation parameter one of exceeds or falls below a predetermined threshold. Konig, et al., deal with material handling *following excavation*. Konig, et al., say nothing about altering excavation parameters to provide a better grade of material. Konig, et al., teaches performing the test when the iron ore is loaded into a front end loader and not as the material is excavated. There is thus no meaningful linkage between excavation activity and grade and therefore no teaching or suggestion to modify Lawrence, et al., in light of Konig, et al., to yield the claimed invention.

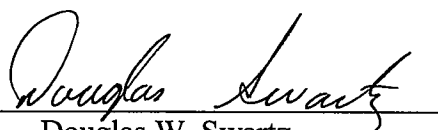
Nonetheless, to expedite prosecution Applicant has amended claim 60 to depend from claim 1.

Based on the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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